

No. 890,939.

PATENTED JUNE 16, 1908.

G. C. STONE.

JIG.

APPLICATION FILED NOV. 6, 1907.

2 SHEETS—SHEET 1.

Fig. 1.

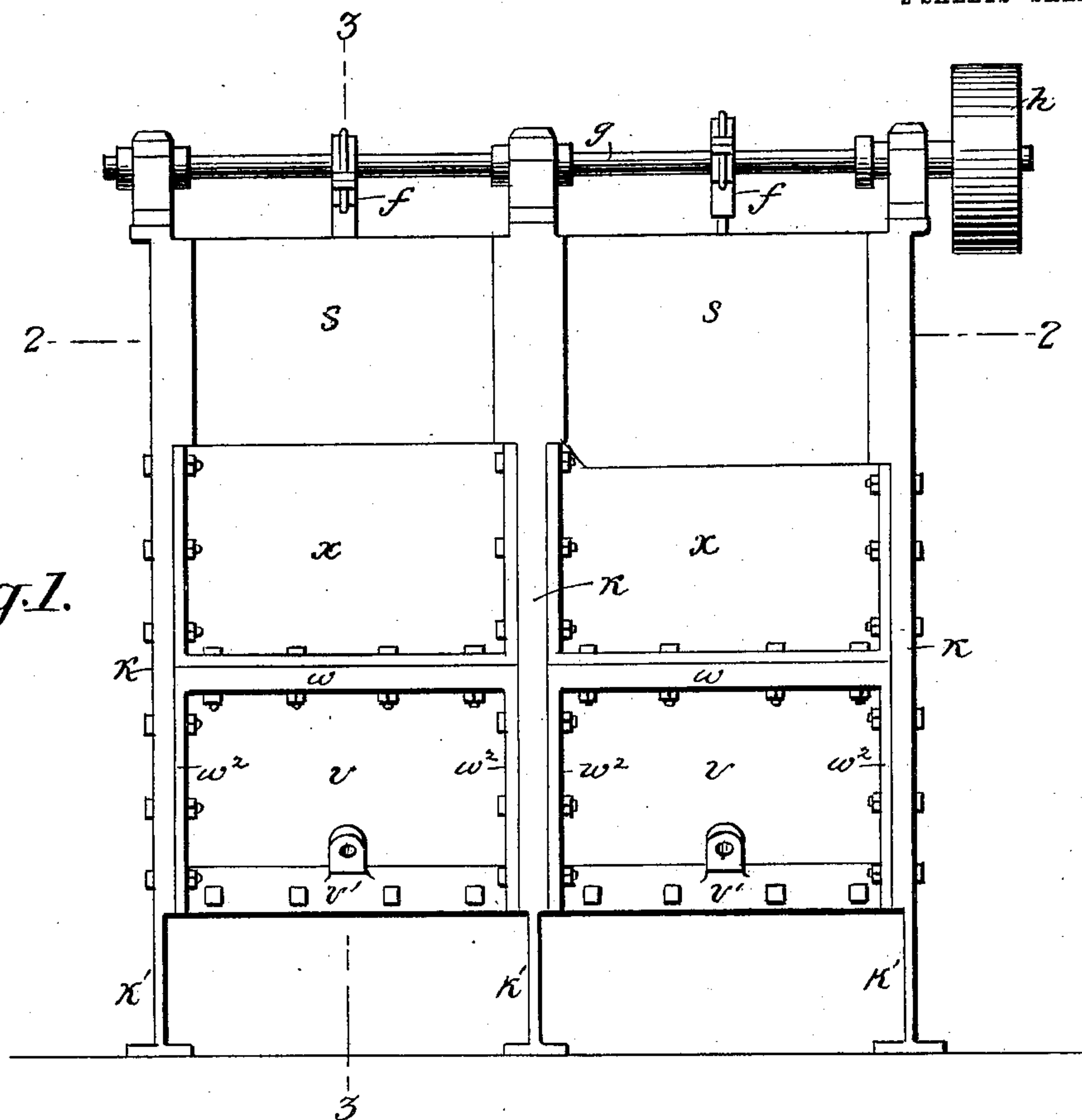
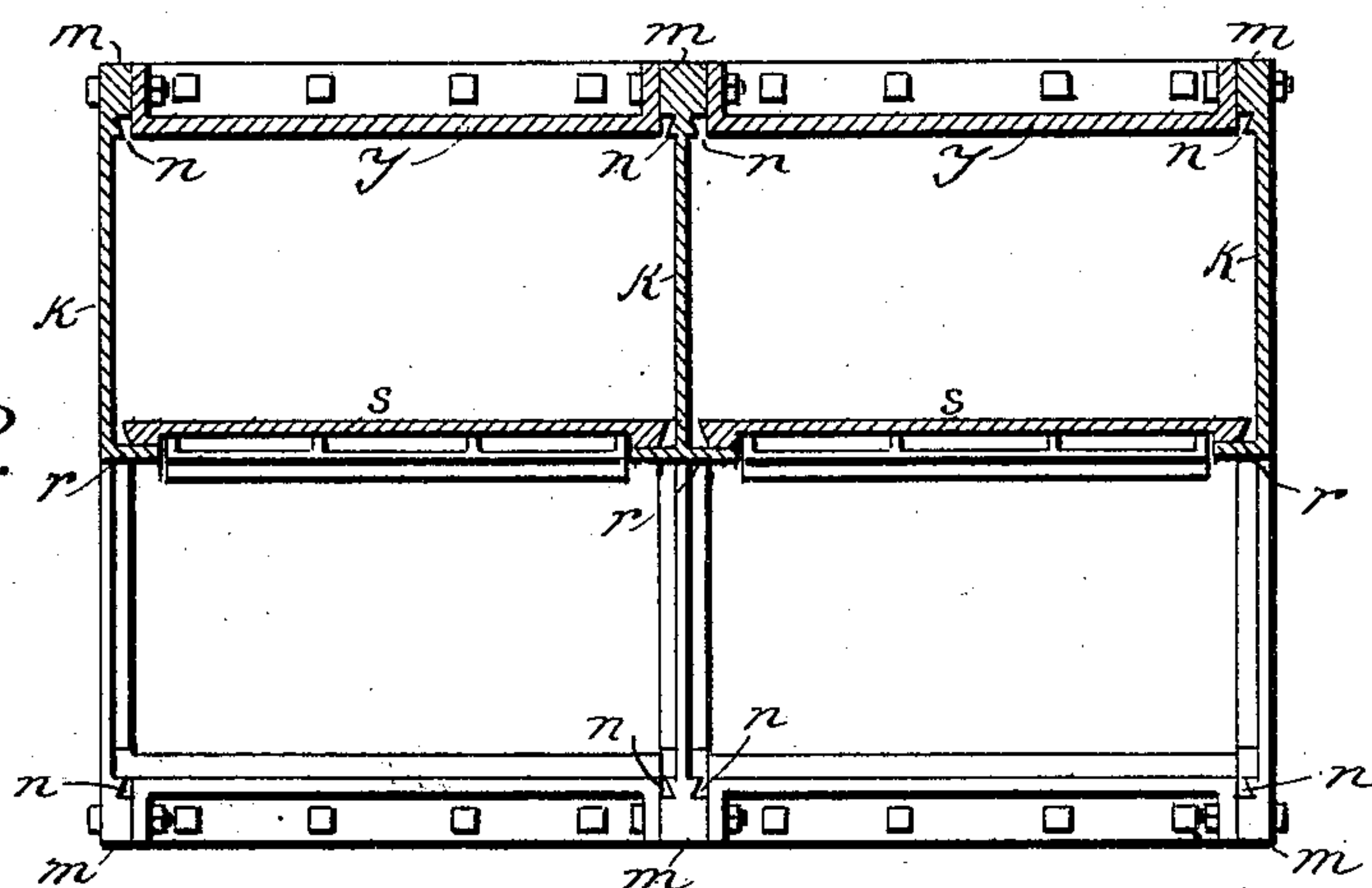


Fig. 2.



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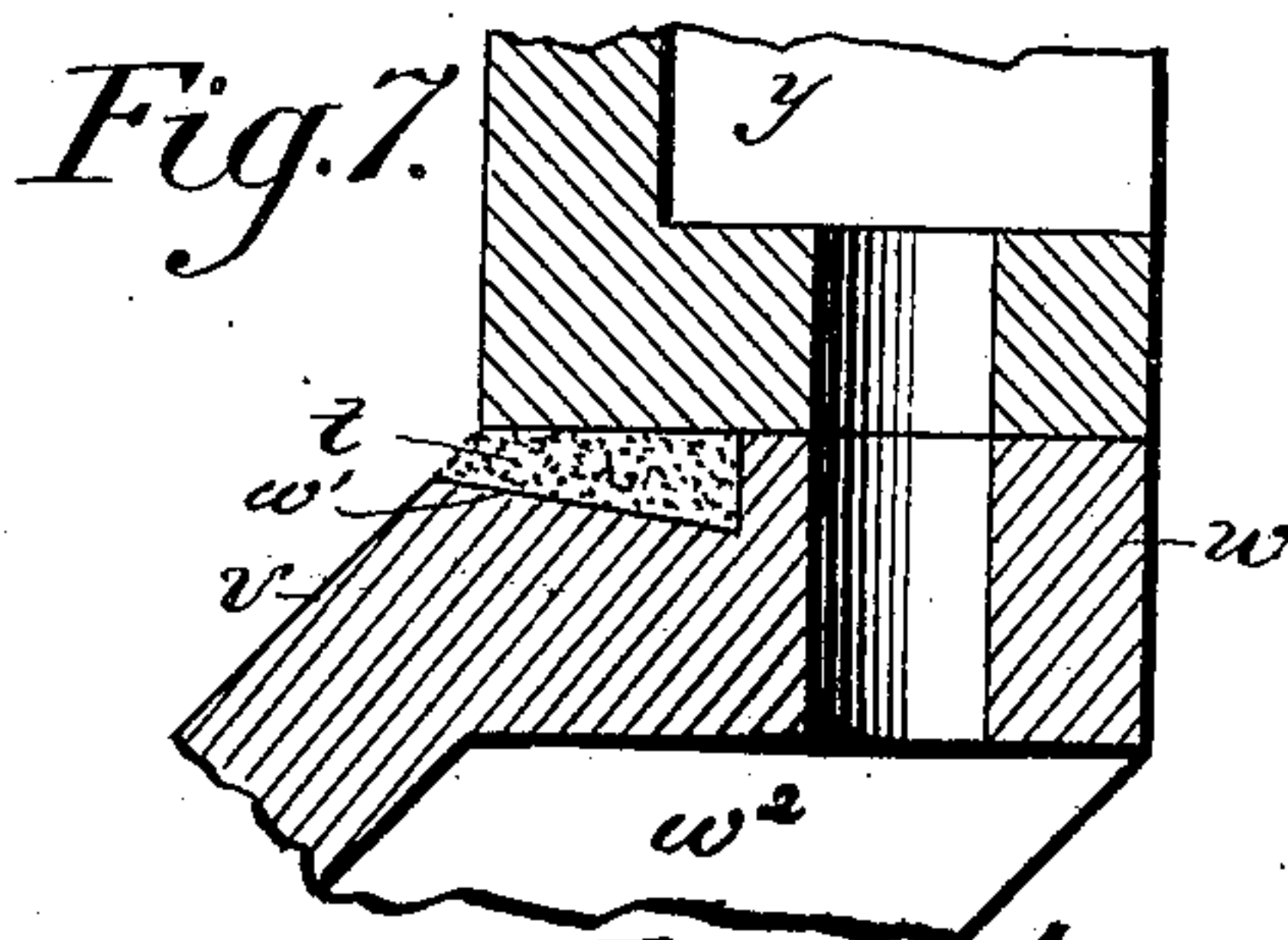
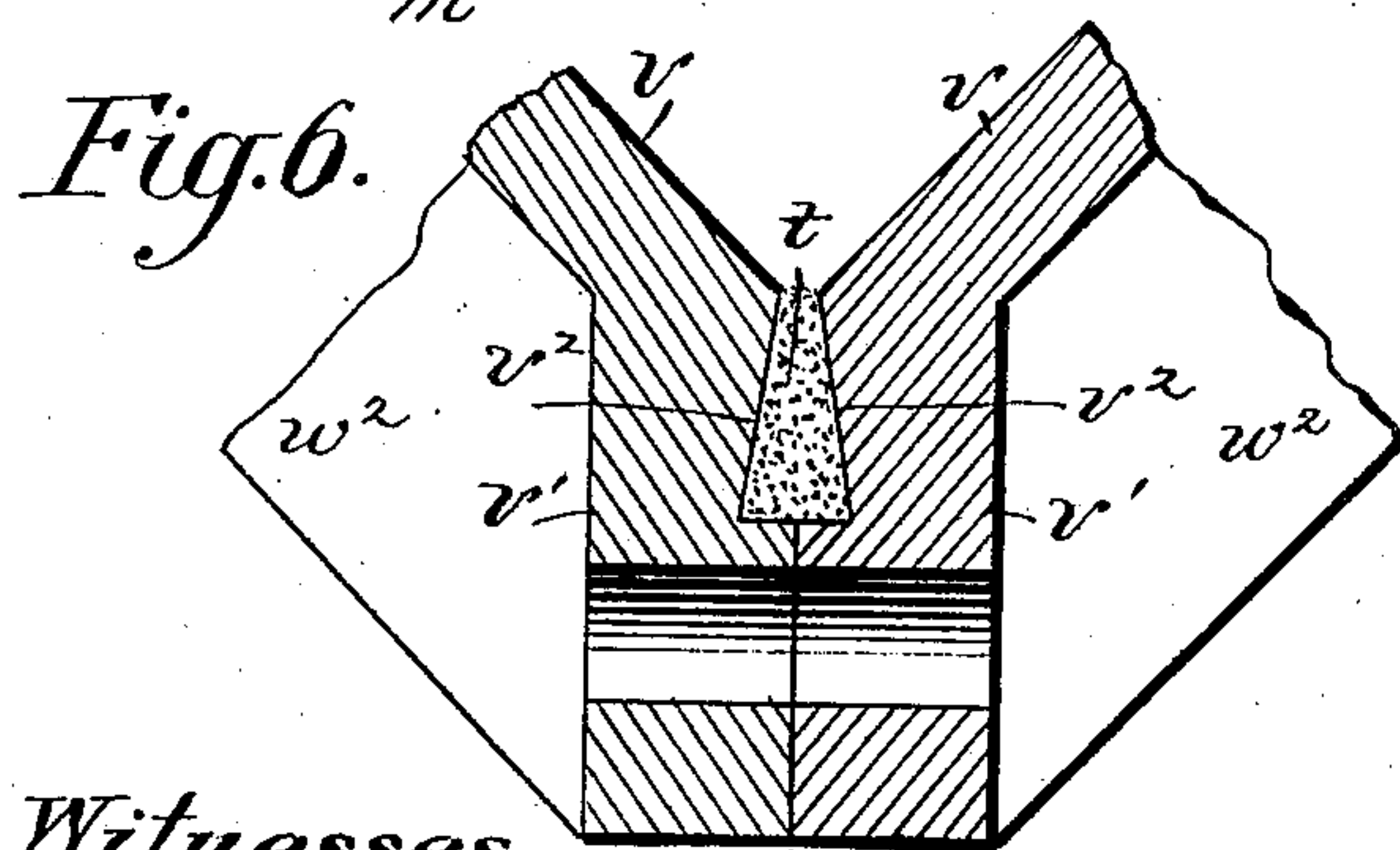
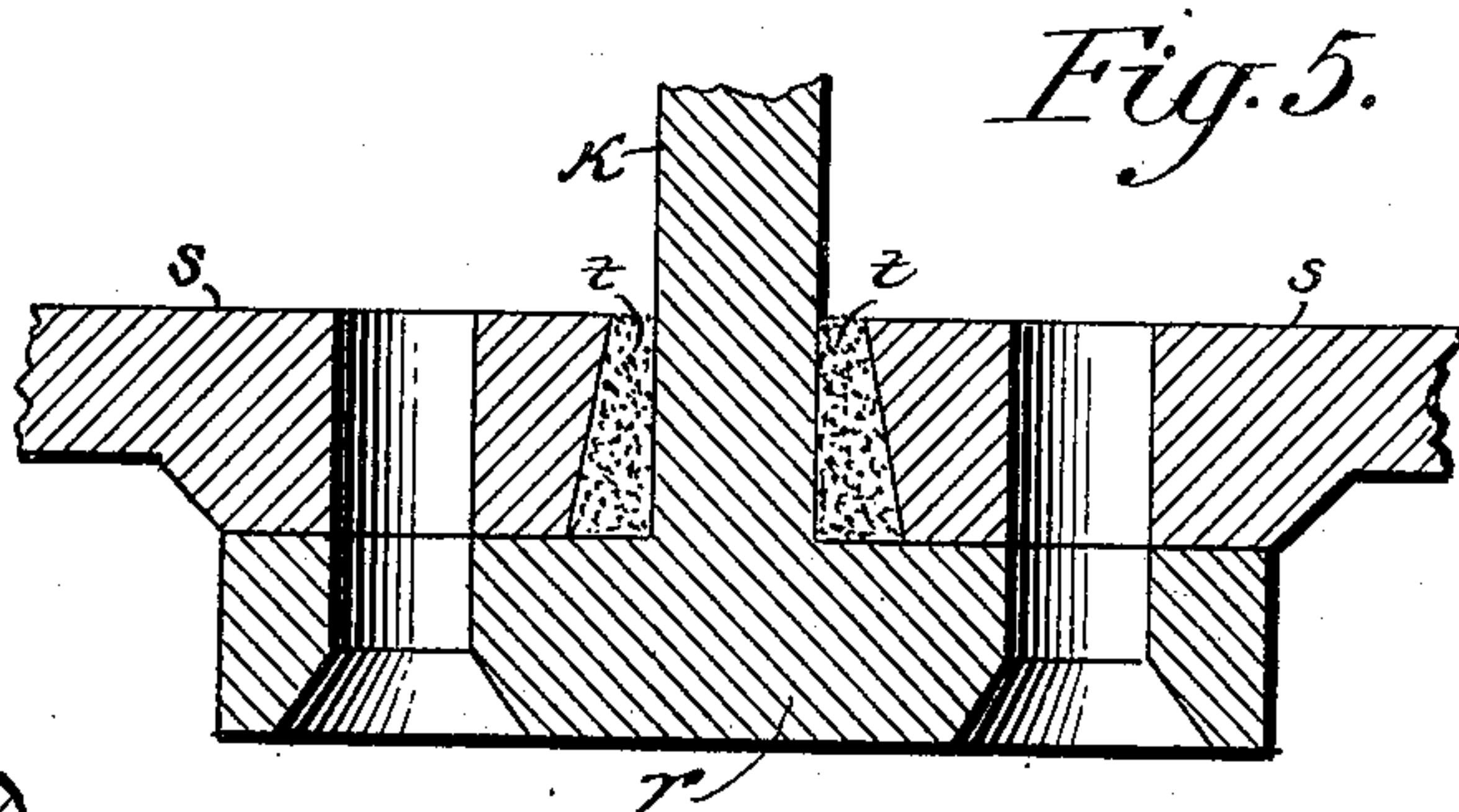
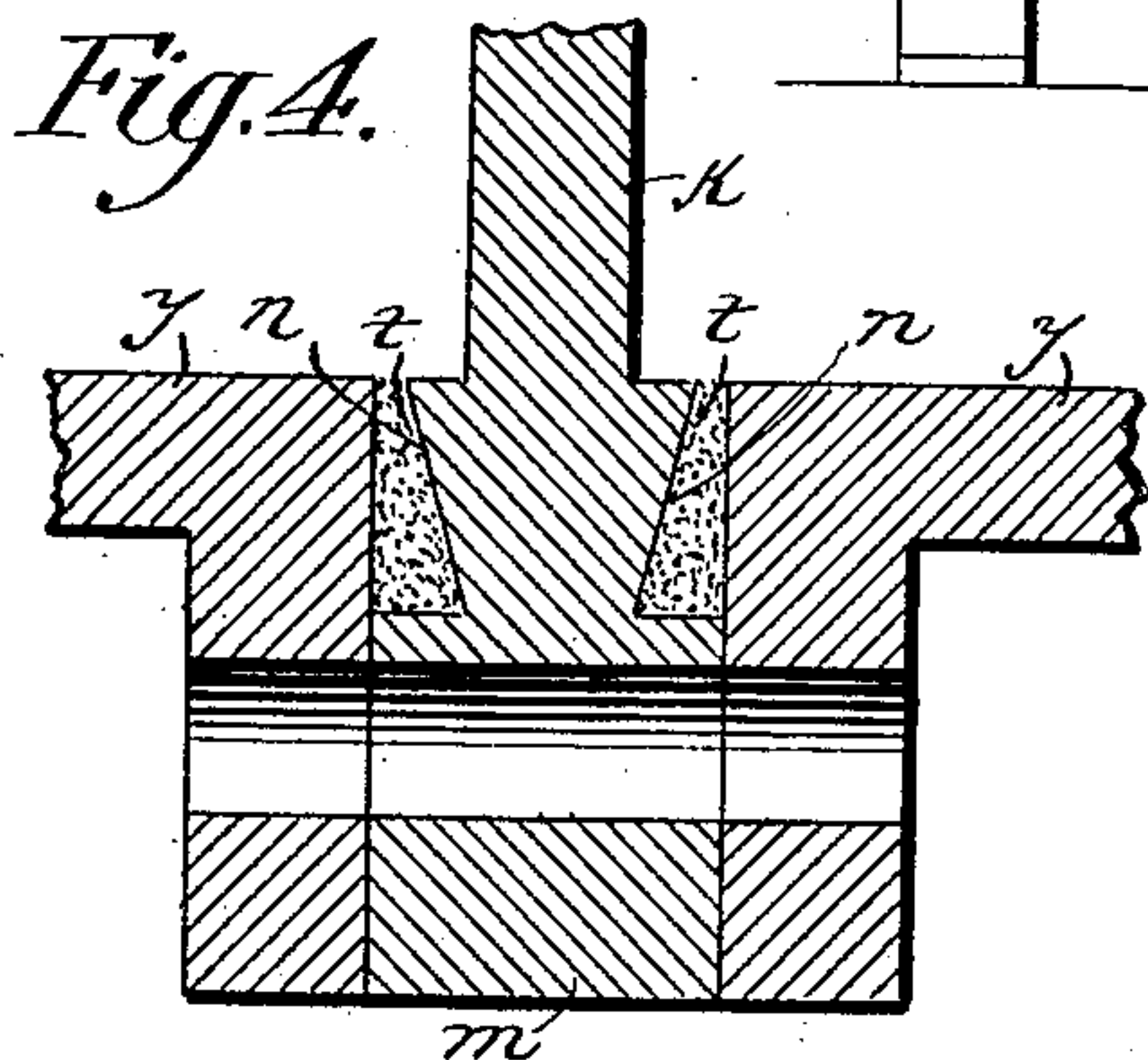
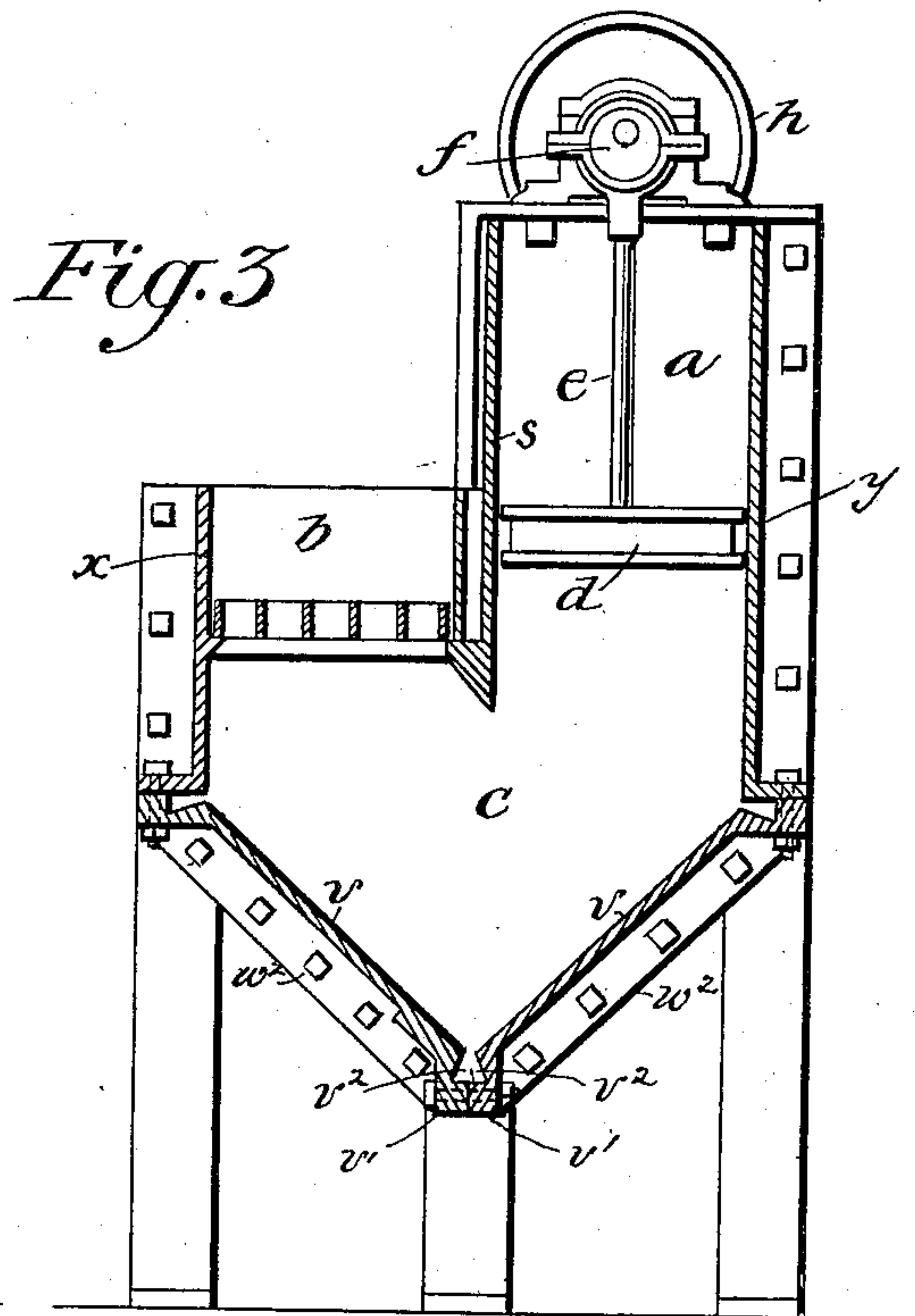
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UNITED STATES PATENT OFFICE.

GEORGE C. STONE, OF NEW YORK, N. Y.

JIG.

No. 890,939.

Specification of Letters Patent.

Patented June 16, 1908.

Application filed November 6, 1907. Serial No. 401,037.

To all whom it may concern:

Be it known that I, GEORGE C. STONE, a citizen of the United States, residing at New York, in the county and State of New York, have invented certain new and useful Improvements in Jigs; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The purpose of my invention is to produce a water-jig of simple, economical and durable construction, whose parts may be conveniently and expeditiously assembled or subsequently renewed in case of wear or damage, and whose joints may be so completely calked as to effectively insure against leakage during long continued use.

The invention realizes what has long been sought in water-jigs and so far as I am aware, has not heretofore been satisfactorily attained, to wit, a substantial cast-iron structure of such inherent strength and stability as to withstand the jars and strains to which apparatus of this kind is subjected when in operation.

In the accompanying drawing, Figure 1 represents, in front elevation, a two compartment water-jig embodying my invention; Fig. 2 represents a cross sectional view thereof on the line 2—2 of Fig. 1; Fig. 3 represents a vertical section on the line 3—3 of Fig. 1; Figs. 4, 5, 6 and 7 represent, on a larger scale, detail views of certain of the joints shown in Figs. 2 and 3.

Similar letters of reference indicate similar parts throughout the several views.

Referring to the drawings, it will be noted that they show the invention as applied to a multiple jig, as, for instance, a jig having two piston chambers, two screen chambers and two hutches. Whether the jig is a multiple or a single compartment apparatus, however, the same essential features of construction are to be employed, as will hereinafter more fully appear.

Each jig unit has the piston chamber *a*, screen chamber *b*, hutch *c*, piston *d*, piston rod *e*, eccentric *f*, the eccentrics being actuated from the shaft *g*, and power pulley *h*, in the usual manner known to the art.

The side walls of each unit are indicated by the letter *k*, and consist of individual castings provided with pedestals *k'*, and supporting at their upper ends the bearings for the power shaft. Along their upright edges

they are each provided with longitudinal flanges *m* and with angular longitudinal recesses *n* adjacent thereto. These side walls are also provided with an intermediate flange *r*; and these flanges *m*, *r* and recesses *n* are, of course, duplicated where, as in the drawing, one of the side walls is common to two jig units.

The partition between the piston chamber and screen chamber consists of a plate *s*, having beveled edges (see Figs. 2 and 5), which edges are spaced at such an interval from the side walls *k* as to leave angular longitudinal pockets for the reception of the oakum or other like calking material *t*. Beyond this calking material the partition plate is connected to the flanges *r*, preferably by means of removable screws.

The hutch bottom is composed of individual castings *v*, which when assembled are inclined toward each other, as shown. Along their lower edges they are provided with the longitudinal flanges *v'* which form a butt-joint, and above this joint each casting has a longitudinal angular recess *v²* in juxtaposition to a like recess of its neighbor, so that the two form an inverted V-shaped chamber particularly adapted for the reception of the calking material *t*. The upper edge of each of the hutch bottom castings is provided likewise with a longitudinal butt-joint flange *w* and packing recess *w'* with its packing of calking material, and the inclined edges are provided with flanges *w²*. Finally, the front wall *x* and the rear wall *y* of the jig consist of flanged castings which rest upon the upper edges of the hutch castings.

Bolts and nuts unite the abutting flanges of the several castings, as indicated more fully in Figs. 1, 2 and 3, and after they are thus united the packing recesses are carefully filled with the oakum, red lead, cement, or other calking material, so as to make the entire structure water-tight.

It will be noted that the upper front and rear wall castings of the jig and also the inclined hutch castings constitute plate girders which united at their end edges to the side wall castings unite the several parts to form a structure of corresponding stability and resistance to the racking strains and stresses to which jigs are in practice subjected.

Having thus described my invention, what I claim is;

1. A water jig, made up of the following elements, in combination, to wit; upright

castings constituting the side walls of the jig and formed with supporting pedestals; inclined duplicate castings forming the hutch bottom; upright castings resting upon the hutch castings and forming the upper front and rear walls of the jig; an intermediate casting constituting the partition wall between the screen chamber and piston chamber; and means for suitably securing the several castings together; the said upper front and rear wall castings and the hutch castings constituting plate girders secured at their edges to the side walls; substantially as described.

2. A water jig, made up of the following elements, in combination to wit; upright castings constituting the side walls of the jig and formed with supporting pedestals; inclined duplicate castings forming the hutch bottom, upright castings resting upon the hutch castings and forming the upper front and rear walls of the jig; an intermediate casting constituting the partition wall between the screen chamber and piston chamber; and means for suitably securing the several castings together, said means consisting of butt joints united by bolts and nuts and calked by packing located in longitudinal recesses adjacent thereto; substantially as described.

3. In a water jig, the combination with the side walls and the upper front and rear walls of the jig, of a hutch bottom comprising duplicate castings inclined toward each other, and extending as inclined plate girders from side wall to side wall, the end edges of said castings being connected to said side walls, and their upper edges being connected to said upper front and rear walls, and the lower edges of said castings being provided with longitudinal flanges which meet to form a butt joint, each casting having above its butt joint a longitudinal angular recess, in juxtaposition to a like angular recess of the other,

and packing located therein; substantially as described.

4. In a water jig, a hutch bottom plate provided along its upper and lower longitudinal edges with angular packing recesses and with longitudinal butt-joint flanges beyond said recesses and having additional flanges along its upright end edges; substantially as described.

5. In a water jig, a hutch bottom plate provided along its upper and lower longitudinal edges with angular packing recesses and with longitudinal butt-joint flanges beyond said recesses, and having additional butt-joint flanges along its upright end edges; substantially as described.

6. In a water jig, the combination with the side plate castings provided with intermediate upright flanges for the partition plate, of said partition plate having beveled edges, arranged with respect to the side plate castings so as to leave angular packing joints along said beveled edges; substantially as described.

7. In a water jig, a side plate consisting of a casting having supporting pedestals and having flanges along its upright edges and angular packing recesses within said flanges; substantially as described.

8. In a water jig, a side plate, consisting of a casting having supporting pedestals, and having flanges along its upright edges and angular packing recesses within said flanges, and having further an intermediate upright flange for the jig partition plate; substantially as described.

In testimony whereof I affix my signature, in presence of two witnesses.

GEORGE C. STONE.

Witnesses:

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